

SCITECH
RESEARCH ORGANISATION

Volume 5, Issue 2

January 12, 2016

Journal of Research in Business, Economics and Management

www.scitecresearch.com

Commissary of Forestry Companies in Cameroon: Instrumental in the Sustainable Management of Wildlife or Statutory Social Requirement: Case Study in the East Region of Cameroon

NGODO MELINGUI Jean Baptiste ¹, MVOGO Christian ², KONO Léon Dieudonné ¹¹Department of Biology and plant physiology /Botany-Ecology laboratory/ University of Yaounde I; BP 812 Yaounde;²Société forestière et industrielle de la Doumé/groupe rougier ; BP 1343 Douala/Cameroon.

Abstract

A commissary is a shop made available by a logging company in which workers, their families and often the neighboring population, can do their daily shopping to supply their needs in staple food stuffs and animal proteins. The creation and operation of a commissary is guided by the labour code to Cameroon and underpinned by the Forest Stewardship Council (FSC). If the Cameroonian State equates the implementing of the commissaries as a social requirement, the FSC considers it more as a mean of protecting biodiversity. This study aimed to highlight the impact of forest certification on the sustainable management of wildlife through the establishment and functioning of the commissary. Four logging companies located in the southeast of Cameroon have been selected including three certified FSC and one not certified FSC. Information cross-checking helped to: (i) describe the context of the commissary (ii) assess the social and environmental impacts of the commissary. Subsequently, the differences in the functioning of the commissaries were characterized. All the commissaries sell similar products with more or less diversity in items sold throughout the year. In-depth analysis revealed that majority of the positive impacts appear from the commissaries managed by certified logging companies compared to non-certified logging companies in which the commissaries seem to bear the reputation of the negative impacts (100 %). Furthermore, certified logging companies are characterized by the implementation of the legal requirements associated with the operation of the commissary. Although the link between the establishment of the Commissary and the decrease of pressure on wildlife is not obvious, it is certain in regards to the high quantities of alternatives protein that this may contribute to the decline of the consumption of bush meat.

Keywords: Forest Certification, Animal Protein, Commissary, Biodiversity.

I. Introduction

I.1 Context and Justification

The movement for sustainable management of Cameroon's forests has led to a consideration of social, environmental and economic aspects in forest companies of Forest Management Units (FMU) certified and / or non-certified. In this study, we highlight the commissary whose mission are many. Indeed, the commissary appears as a statutory social requirement with the 1992 Labour Code and at the same time in sustainable forest management certification standard of the Forest Stewardship Council (FSC) in 1999, as a constraint to certification that is the objective is the sustainable wildlife management.

The concept of commissary was established in Act No. 92-007 of 14 August 1992 on the Labour Code in Cameroon, in Chapter 4, sections 78 and 79. According to the Cameroon Labour Code (Article 78-1) a "commissary" is considered as any organization where the employer practice, directly or indirectly, the sale or transfer of goods to the company's employees for their personal and normal needs. The conditions governing the operation of a commissary are:

- a) That the workers are free to supply their needs or not;
- b) The sale of goods will be carried out exclusively in cash and without profit;
- c) The accountability of the commissary or the company's commissaries is fully autonomous and subject to the control of a supervisory committee elected by the workers;
- d) That there should be no selling of either alcohol or spirits.

Furthermore, the opening of a commissary is in accordance with Article 78 of the Cameroon Labour Code and must be declared to the Labour Inspector.

The same concept of commissary is found diluted in the requirements of the forest certification standard of the Forest Stewardship Council (FSC) structured as Principles-criteria-indicators (PCI), particularly principles 4.6 and 9. Indeed, FSC standard on forest management in principle 4 on the rights of workers and community relations particularly in indicator 4.2.2, states: "Forest manager must take practical steps to supply its products in workers and food of good quality according to local mercurial". The same principle adds (Indicator 4.2.7) by stating that "when workers live in camps, conditions for accommodation and nutrition must meets at least the requirements specified in the code of practice on safety and health in forestry work of ILO or national legislation." Indirectly, the protection of biodiversity-related requirements contained in principles 6 and 9 of this particular standard. Indicator 6.2.15 and criteria 9.2 encourage the implementation of commissaries.

In view of contemporary literature [1]; forest management has undergone developments and can be classified into four broad categories.

- conventional timber which is a form of management where regulations specifically aimed at preserving natural resources are not or minimally applied;
- Sustainable forestry which relates to a purely economic approach of the forest: it is to ensure the sustainability of wood supply of a plot operated without attention to other goods and services (maintenance of biodiversity, etc.) of the forest;
- Sustainable forest management integrates the concept of sustained performance as the previous form, but extends to providing all the multiple goods and services of the forest, including wood;
- Sustainable forest management is primarily focused on the ecological and social aspects of forests, the economic component constituting more will shutter priority .

All these forms of management have existed or still exist in tropical forests in general and particularly in Cameroon's forests. These forms of management were accompanied first by public initiatives that have shown their shortcomings and deficiencies, and by the emergence of private forms of regulation (forest management certification system) as the continuing degradation of these forests. The Commissary is both a public initiative and a device that relies on a form of private regulation of forest certification. What is the influence of FSC forest certification in the functioning of commissary? And what is the impact of the commissary, particularly on sustainable wildlife management?

I.2 Objective

The main objective of the study is to show the impact of forest certification on sustainable wildlife management through the establishment and functioning of commissary.

Specifically, this is to:

- To make an inventory of the commissaries in each of the targeted forest companies;
- To assess the social and environmental impacts of commissaries in and around the certified and non-certified FSC Forest Management Unit of the study area;
- To characterize the differences observed if they can be attributed to the adoption and implementation of FSC forest certification schemes.

Material and Methods

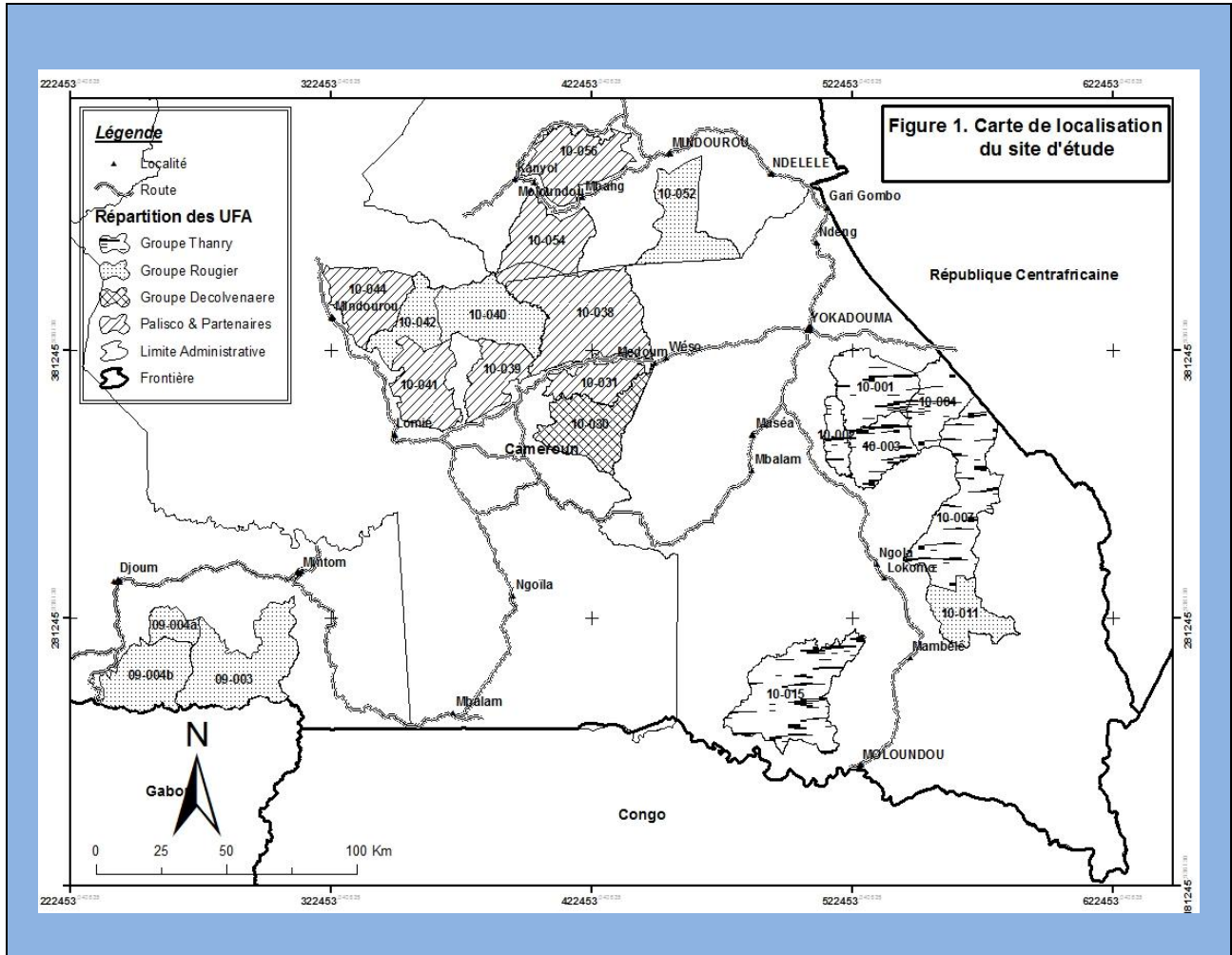
II.1 Material

The study was conducted on the following sites consist of FMU from four (04) large groups (Figure 1):

- Group Thanry with FMUs 10007/SCBC/Lokomo ; 04 FMUs grouped : 10001 ; 10002 ; 10003 ; 10004 /CFC/Ngola ; 10011/SAB/Lokomo ; 10015/CIBC/Lokomo ;
- Group Pallisco and Partners/Mindourou with FMUs 10030, 10031, 10039, 10041, 10042 and 10044/;
- Group ROUGIER-SFID/Mbang with FMUs 10038 -10040 -10054 -10056 and DJOUM with FMUs 09003/09004;
- Group Decolvenaere- SFIL/Ndeng with FMU 10052

Forest certification presents multiple stakes for the enterprises involve in this process we requested the anonymity four (04) companies in this article.

Fig. 1. Map of the Study Area



The other type of material used consist mainly of documents relating to the commissary, legal texts in force in Cameroon, including the Law No. 92-007 of 14 August 1992 on the Labour Code in Cameroon and the certification standard of Forest Stewardship Council (FSC).

II.2 Methods

II.2.1 Data Collection

The research involved FMU in the administrative region East Cameroon with the reason being the presence of multitude of forest companies with certified and non certified FMU that have commissaries. Triangulation method was used, it consist of three pillars: documentary review, interviews and field observation.

From the values proposed in FSC International standard and the Labour Code of Cameroon, variables were chosen that improve the conditions of life and work, especially in relation to the commissary.

The hypothesis tested is that the presence of a FSC certificate had a positive impact on the functioning of commissary in the forestry companies and therefore on the collection of wildlife.

To test this hypothesis, an examination of the mechanisms adopted by forestry companies were carried out in the FMUs, certified or not, belonging to four (04) large groups of forest operators established in Cameroon. This task included a preliminary analysis of the documents available in the enterprises especially the management plan documents, socio-economic studies, social procedures in the internal strategy texts and the texts in force in Cameroon on the matter. These documents present the mechanisms adopted by logging companies to solve social and / or environmental problem, but do

not provide evidence of its implementation, hence the need to conduct interviews, surveys and field observations. Specifically, data collection took place in the following joints;

Literature Review: Literature review was conducted to assess the economic politics of the forestry sector in the study area and try to explain why differences were observed or not.

Interviews and Questionnaire: Interviews and questionnaires were administered to forest manager, head of unit of forest management, workers of these companies on the functioning of commissary and their families on the place of work that is sawmill or exploitation site and in the base-.Also question about the commissaries was administered to indigenous villages around the FMU through group discussions including men, women and indigenous peoples. The survey format varied from individual to group discussion. Interviews were conducted in local languages, but most of the interview was done in French.

Field Observation: The commissaries of all forest companies sample were visited. The evaluated parameters remained the same that is; the date of putting in place of the commissary, the presence of a base, the types of products sold, the prices, the profit margin, the type of management (direct control, Mutual workers, subcontracting), the quality of service provided by the commissaries (especially in terms of regularity of supply and quality) and grant status of commissaries by forestry companies.

II.2.2 Processing and Data Collection

Data collected from certified and non certified FMU of each group of forest operators in all study sites were grouped and compared.

III. Results and Discussion

III.1- Result

The information presented comes from eight (08) commissaries, 20 FMU, 120 workers were interviewed, six (06) forest managers were interview, six (06) head of forest management unit were interviewed and the review of available documents, focus group formation in the villages around FMUs and informal discussion with workers after working hours to better triangulate and quantify data collected during formal interview. The result of the commissaries comprises of 20 FMU that is 13 certified and 7 non certified. For the sake of preserving the anonymity of the companies that provided the framework of study, the following nomenclature will be adopted:

Company A: For the first FSC certified company;

Company B: For the second FSC certified company;

Company C: For the third FSC certified company;

Company D: For the company not FSC certified.

III.1.1 Inventory of Commissaries in Each of the Targeted Forest Companies

The result showing how the commissaries are been manage is summarized in table

Table 1. Inventory of the State of Commissary in Each Targeted FMU					
Variables/ Management	Company A	Company B	Company C	Company D	Observations
State of FMU	FSC Certified/2010	FSC Certified /2008	FSC Certified /2012	Non FSC Certified	
Base	At headquarter	Mixt	Mixt	At headquarters	
Date of the putting in place of the commissary	2010	2008	2009/2010	2010	
Numbers of commissaries	Two (02)	One (01)	Two (02)	One (01)	
Type of management in the commissaries	Direct management	Direct management	In partnership with solidarity fund/Mutual of workers	Sub-contracting	

Products sold	Alternatives proteins (fish, meat, chicken, etc.) to which is added basic good necessary for life	Alternatives proteins (fish, meat, chicken, pig, etc.) to which is added basic good necessary for life	Alternatives proteins (fish, meat, chicken, pigs, etc.) to which is added basic good necessary for life	Meat, chicken, fish and basic good necessary for life (stores in particular)	
Sale modalities	Accountant	Mixt (accountant and on credit)	Generally in the accountant	Generally on credit	
Contribution of the employer/ company	Cost related to the transportation of goods and functioning of the commissary	Cost related to the transportation of goods and functioning of the commissary with a cold room	Cost related to the transportation of goods and functioning of the commissary (availability of tipper truck) and a fridge	Cost related to the transportation of goods and functioning of the commissary (availability of tipper truck	
Objective	Social (supply the workers with animal proteins and other basic goods necessary for life to be fixed in place of work)	Social (supply the workers with animal proteins and other basic goods necessary for life to be fixed in place of work) and reduce the pressure on wildlife by proposing alternatives proteins	Social (supply the workers with animal proteins and other basic goods necessary for life to be fixed in place of work) and reduce the pressure on wildlife by proposing alternatives proteins	Social (supply the workers with animal proteins and other basic goods necessary for life to be fixed in place of work) and LAB (bucher and fish ponds)	
Practical price	In conformity with buying price of Bertoua or Batouri, but the prices are susceptible to vary with the market	In conformity with mercurial of Bertoua	In conformity with mercurial of Bertoua or Sangmelima	In conformity with the buying price of Yokadouma, but the prices are susceptible to vary with the market.	Only the products of cold store and butcher respect mercurial of the nearest town , but this two activities does not function
Profit margin	No	No	No	yes	Profit à dans in one of the sites of company D
Regularity in supply	Yes	Yes	Yes	No	If possible explain why it is No
Quality of supply	Yes	Yes	No	No	Same

Table 2. Average Monthly Evolution of Sales of Animal Protein to the Commissary of 2009-2012 in the Targeted Companies.

Month Quantity (kg) sold	J	F	M	A	M	J	J	A	S	O	N	D	Total (kg)
2009	177	112	90	100	107	118	85	111	91	104	104	559	1758
2010	172	222	220	218	187	230	492	493	411	661	257	332	3895
2011	2012	1719	1891	2000	1378	1504	1655	1223	1609	2143	2418	1606	21158
2012	1567	2020	2361	2832	2990	2224	2277	1992	2245	2817	2929	2287	28541
Total	3928	4073	4562	5150	4662	4076	4509	3819	4356	5725	5708	4784	55352

Table I show us the strength and weaknesses of forest companies evaluated. The strength encountered in the four (04) big groups includes:

- Existence of a base ;
- The putting in place functioning commissaries, taking in to consideration certification concept ;
- Effective and permanent contribution of companies in the functioning of commissaries (transport, stockage, etc.);
- Products Sold integrating essential commodities and alternative sources of animal protein;
- Sales usually spotted for certified companies ;
- Similarity of objectives: social and wildlife protection;
- Respect the mercurial and without profit for certified companies
- Quality of supply for the commissaries.

Weaknesses Include:

-The existence of profit margin in non certified forest companies;

The approximate quality commissaries supplied to the companies (partnership or subcontracting).

III.1.2 Evaluation of Environmental and social Impact of Commissaries in and Around Certified and Non Certified FMU of the Study Area.

Positive Social Impacts

- Supply workers with animal protein ;
- Products are sold at the market price without any profit ;
 - Buying and selling in the commissary is done at the accountant office (Good planification of family budget);
- Products necessities at hand;
 - Good preservation of perishable products;
 - Reduced the cost to travel to larger cities;
- Freight, handling and operation of the commissary at the company's expense. Furthermore, freezers and cold rooms are purchased by the company;
 - Access granted to workers, their rights and local residents;
- Solidarity Fund supplies the commissary ;

Negative social impact

Local residents are not allowed to buy in the Commissary in some cases

Positive Environnemental Impact

- Taking into account the need to reduce pressure of staff on wildlife by providing alternative protein;
- Supply twice a month, week of mid month payment of workers salaries;
- Access to the Commissary by the people of the village around processing site
- Measures taken by the company to discourage employees in the consumption of bush meat;
- Existence of projects aimed at increasing competitive supply of animal protein;
- Supply of commissaries up an average ton (100kg 900kg meat and fish) of protein per month when the consumption of bush meat is rooted in the eating habits of the town. Moreover, this protein source is by far the most available and cheap;

Negative Environmental Impacts

Risk or incentive for workers in camps (prospection, inventories, forest logging) to hunt or fish

III.1.3 Characterization of the Differences in Commissaries Management

Comparison of the state of certified and non-certified company permits us to comment on the following; Commissary is present 100 % in the entire sample FMU whether certified or non-certified.

All commissaries selling similar products with more or less variety in the products sold throughout the year. The most common products are bread, water, sardines, oil, vegetables and protein sources other than bush meat, such as fish, chicken, pork and, to a lesser extent , beef (Figure 2).

Fig.2. Items in the Commissary (Source: Field Work, 2014).



The worker of certified FMU declared that the quality of service provided by the commissaries has been ameliorated. Since the engagement of these forestry company to FSC certification till the award of these certificate. The workers of non-certified FMU declare that there has been no particular improvement since the putting in place of the commissaries.

In the certified companies, commissaries management remains through direct control and partnership with mutual solidarity fund of workers while outsourcing is the means that non certified companies manage their commissaries.

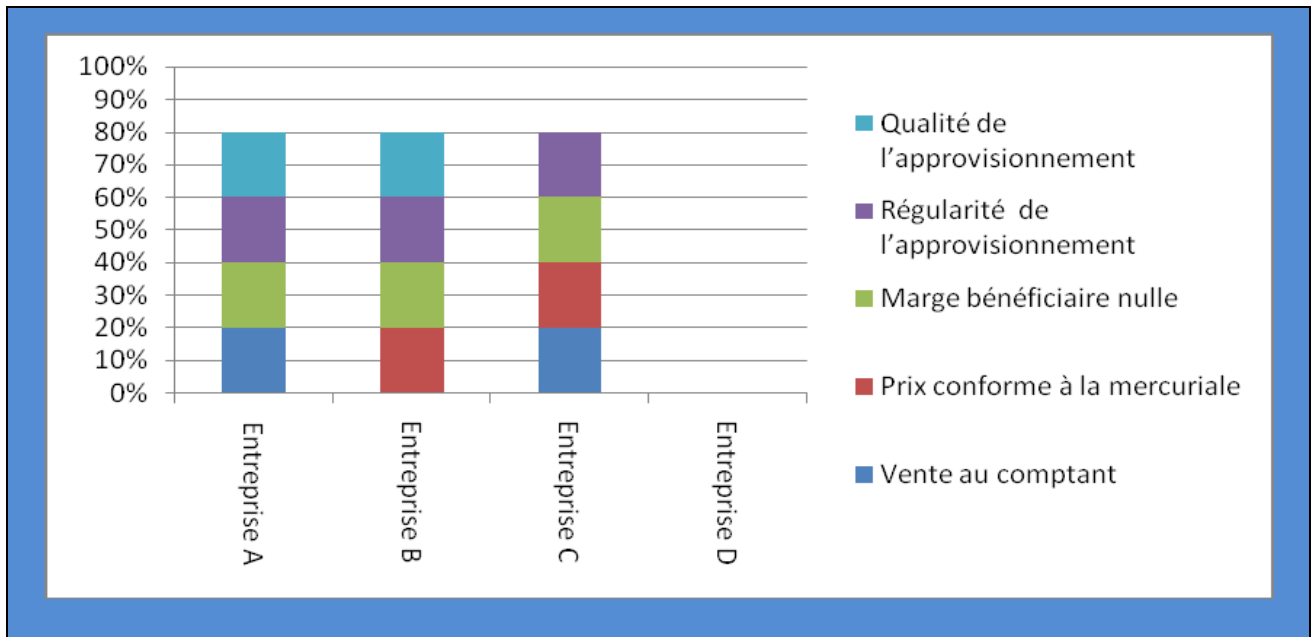
The prices in the commissaries managed by companies are equivalent to those of neighboring cities, the proportion of respondents satisfied with the price being higher in the certified FMU (83%) than in non-certified FMU (42%). The greatest satisfaction observed in the certified group can be due to the fact that companies subsidize the price by making available to the commissaries means of transport and storage (Figure 3) product , not to mention the costs inherent to the staff in service such stores.

81% of respondents from villages bordering certified FMUs have complained of being more constrained by new regulations introduced with the certification this is contrary to local population around non-certified FMU. This suggests that compliance with regulations is more pronounced in certified concessions (Figure 4).

Fig.3. Fish Conserve in the Fridge in a Commissary (Source: Field Work, 2014).



Fig.4. Characterization in the Differences in the Management of the Commissaries



In a similar manner no forestry company is counting on traditional hunting to supply bush meat to his workers this is to prevent pressure on wildlife. (Figure 5)

Fig.5. Taking a Punch Operation (Source: Forest Station Djoum, 2014[1])



The second question is whether the observed differences can be attributed to the adoption and implementation of the FSC forest certification system. From a quantitative and qualitative perspective, the study on the establishment of commissaries in forest companies in east- region of Cameroon brings out the major differences between certified and non-certified FMU. Thus for social variables, significant differences were found in terms of the existence and effective implementation of clear written procedures regulating the conditions of life and work in sawmill site, during the logging operations and in the base. In the base camps near certified FMU show an improvement in the quality of life since the

companies engage in to FSC certification until obtaining the certificate. The workers testify great satisfaction in relative to the prices and availability of products in the commissaries of certified FMU. Regarding environmental variables, it is true that the statistics on sales of animal protein alternatives in the commissaries of certified FMU exist, the statistics are almost non-existent in the commissaries of non-certified FMU because of the commissary is being management through outsourcing. The results suggest that commissaries of forestry enterprises an incentive to improve their standards. Indeed, improved conditions are noted since the commitment to certification, even as it is dynamic in time and space. The third concern is to be able to establish the existence of a significant correlation between commissaries and sustainable wildlife management.

The commissary offers employees alternative proteins of fish, pork, chicken and beef, respectively, in order of procurement importance (Table 2).

The analysis of Table II suggests:

- The importance of growing sales of animal protein over time with a very pronounced jump between 2010 and 2011;
- A more or less permanently balanced overall sales throughout the year;
- A positive perception and integration of the commissary in the habits of workers and other residents in relation to family budget.

Also, although the link between the establishment of the commissary and the reduction of pressure on wildlife is obvious, it is certain that under the quantities sold, protein alternatives would contribute significantly to the decline of the consumption of bush meat. But it is difficult to assess the effects of forest management practices on wildlife using the FSC performance standard with time in the absence of a framework for assessing the Environmental effectiveness of these devices. Indeed, the FSC forest management appears to be based more on observation of behavioral changes on the certainty of impacts on wildlife preservation.

**Fig.6. Dwarf Crocodile (*Osteoleamus Tetraspis*) Protected Species Slaughtered and Marketed
(Source: Fieldwork, 2012)**



III.2. Discussion

On the Concept of Commissaries

In the sample company, a commissary is a type of store put in place at the disposition of forest companies and in which workers, their families and local population can do their daily shopping for supplies in basic foodstuffs and alternative animal proteins. This definition is in conformity with the concept of commissary by the Cameroon [2]. All sampled companies have a commissary, whether certified or not, for all its FMU, or sometimes separately for the saw mill and logging site. Three modes of management without any relationship to certification level: the direct control, corporate governance in partnership and corporate governance in outsourcing. The practice in the certified companies reveals that the goods are sold for cash and without profit in the commissaries unlike non-certified companies. This result is consistent with paragraph (1) of Article 78 of Law No. 92-007 of 14 August 1992 which refers to "the sale or transfer of goods" and even paragraph (2) as the sale in cash and without profit.

In the commissaries we visited we noted the following:

- Access is free for workers and their families and regulated for local residents;
- The commissary management is ensured either by the company itself or by mutual personnel or so by a subcontractor;
- Counters of commissaries never offer alcoholic beverages.

This result is in accordance with the requirements of paragraph (2) of the Labour Code. But the social conditions laid down in the Labour Code are respected in the course of the functioning of the commissaries in certified companies. Indeed, access to the Commissary is granted not only to workers as required by the Code of Cameroon work, but also to their families and neighbors thereby strengthening social peace and improving the health of populations in and around the FMU. Implementing requirements beyond those provided by the national rules may be due to the merging of these companies with FSC forest certification standards. Indeed, these requirements are in compliance with those contained in indicators 4.2.2, 4.2.7 and 6.2.15 "4.2.2: The forest manager must take practical steps to supply its workers with goods and food of good quality according to local mercurial;

4.2.7: Where workers stay in camps, conditions for accommodation and nutrition must be at least meets the requirements specified in the code of practice on safety and health in ILO forestry or legislation national;

6.2.15: When employees are hosted in remote locations, the company provides employees with domestic meat at a price at or below the mercurial of the nearest city reference price). "

Indicators 4.2.2, 4.2.7 and 6.2.15 seem to establish a link between forest certification, conditions of work and living standard and the Cameroonian Labour Code 6.2.15 while the indicator focuses on the risk incurred in the collection of wild fauna and fishing (poaching, biodiversity protection) in case of non-supply of workers during logging operations.

The installation of a base is necessary in the management of forest companies. A base according to [3] in their study on low-impact logging techniques Cameroonian rainforest, a base includes a camp to house the entire staff, workshops, stores, offices and social constructions (dispensary, school, cooperative). In practice, forestry companies visited, bases are residential areas where the company provides housing, services and some infrastructure for workers and their families. This result is in agreement with [3].

In the evaluated forest companies, the installation of a base always precedes the establishment of the commissaries. Apart from electric power and drinking water needs, the urgency is also to supply basic goods essential for life and alternative animal protein products. This is in compliance with the Cameroon Labour Code [2] and 4 and 6 principles of FSC certification standard [3].

But the problem that one faces lies in the consequences of the creation of a new area of concentration of rural populations. Indeed, the negative impact on the wildlife will also be immediate in terms of incentives to hunting by workers. This problem comes into contradiction with the protection of biodiversity aspect of the principles advocated by 6 and 9 of the FSC standard.

To reduce these risks, ongoing evaluation of these forestry companies is necessary following a timetable established by the FSC certification process.

On the Assessment of Social and Environmental Impacts

The survey of eight (08) commissaries; present a total of seventeen (17) positive and negative impacts on social and environmental. On the social side, ten (10) impacts were identified of which nine (09) positive impacts and (01) negative impact. In environmental terms, the study recorded seven (07) impacts including six (06) positive impacts and (01) negative impact. Further analysis reveals that the majority of positive impacts (about 87%) are of commissaries managed by certified structures, this not the case with non certified FMU that have negative impacts of (100%). These results are in accordance with audit reports prepared by [1] and SFID [4].

Regarding the environmental aspect, it was asked whether the optimal operation of the commissary can reduce the pressure on bush meat by workers of logging companies. If not, we realize the effect, through penalties for illegalities thanks to the rigorously efforts of certified companies to apply internal rules, can allow a significant but hard to quantify reduction of pressure on wildlife in non-certified companies. Indeed, among the commendable efforts of the company to develop, validate, implement and monitor internal rules on wildlife management include the means used to educate employees and local population to the problem Wildlife (rules on hunting, consumption and developed bush meat transport; posters and brochures related to illegal activities and posters of protected species were produced for use in carrying awareness campaigns; talks educational). But eating habits hardly dies, "we like to eat porcupine for example, and its meat has no alternative. "This procurement is essential if prospectors camp during their field missions. Generally, prospectors brings with them, cables and hooks to perform hunting and fishing without discrimination of species or age of species. This extra nutrition reduces the pressure on biodiversity, and therefore the anti poaching (LAB), especially when we know that a prospection mission is made up of 20-30 people for three (03) weeks. The enforcement action is conducted under the internal rules and regulation in the field and is well respected in FSC certified companies. The permanence in quantity and quality alternative protein in the commissary does not necessarily mean reduction in the consumption of bush meat or poaching. Furthermore, poaching is not only exclusive to company workers. Indeed, there must also add local population who practice this activity. So we can say that the implementation of commissaries does not influence poaching much. This is true with commissaries of one of the certified companies. Indeed, it appears that 100 kg of meat took about one to two months to be sold. The state of sale suggests the existence of other sources of animal protein and thus intensified poaching. The example can be found at the kilogram of meat sale price: a kilogram of meat costs 2200FCFA while the price of a porcupine is 3000FCFA which weights is 3 kg that is 1000FCFA per kilogram for porcupine.

It is also important to note that eating habits of bush meat as a source of food cannot be easily replaced by alternative proteins. According to the opinion of an official of the Company A, there is really no functional link between a good functional commissary and anti poaching activities. For representatives of one of the certified companies, consumption of bush meat a eating habit that even if the price of proteins in the commissaries is reduced it will not change their eating habit from consumption of bush meat. Moreover, the very normal functioning of control barriers thus not has any impact on poaching. Indeed, professional poachers always find ways to by-pass control barriers and their principal targets are not workers of this forest companies. For the head of the company B, the commissary has an impact on the collection and consumption of bush meat through the rigorous application of the rules of the company about it. From the above, it is likely that the normal functioning of the Commissary in three FSC certified forest companies do not impact in the same way and to the same extent the consumption of wildlife. And the perception of the leaders in this respect is not the same. Environmental performance appears related to other variables. But we must recognize that the poaching remains higher in non certified FMU than in certified FMU.

Characterization of Differences

The comparison of results between certified and non-certified FMU and the characterization of the differences led to the question of whether it is the certification that makes the difference. This comparison results used the same parameters, namely: the presence of a commissary, products sold, type of management, meal prices, type of sale, the company's subsidy margin, hunting, etc. And in each time, the study notes good practices in the commissaries of certified companies compared to non certified companies. These results suggest that certification can be significantly associated with better social performance.

However, were did not known their social and environmental performance before the establishment of the certification process in Cameroon. The same thought was developed by Durrieu of Madron and Ngaha in 2000. Similarly, this result joined the similarities observed between social and environmental conditions that reflect the pre-audits in 2009 and 2010 to the SFID and 2010 to the SFIL and that found today in some non-certified FMU.

Generally, the applied triangulation seems to reveal that the differences in the commissaries between certified and non-certified FMU are due to the existence of the requirements of the FSC standard. Indeed, the FSC standard is stricter and more detailed than national laws, while it is regularly updated, shared and verified contrary to national laws. This result corroborates the existence of gaps and deficiencies of public initiatives mentioned [5].

Certification is a process; the improvements are not produced simultaneously or at the same pace or with the same results in all businesses. But on average, in companies that have decided to commit with the FSC, the improvements occurred at a much faster pace and with better social performance than non-certified FMU. The most obvious triggers that lead companies to improve their social performance seem to be

- 1) The need to maintain a channel of permanent communication with the local population to avoid unintended or social conflicts disturbances, which could disrupt industrial operations;
- 2) Periodic, regular and effective controls integrated in certification process. The same logic was followed with the question of the protection of biodiversity. This result is in agreement with [6]). The findings indicate that the

average social performance of companies with certified FMU is legitimate and provides more positive results in terms of behavioral change as compared to companies with non-certified FMU. However, they also show that there are differences in each of these two categories.

Conclusion

The study on the commissaries to evaluate the social and environmental performance of a group of FMU certified FSC, which was compared to the performance of other non certified FMU in the East region of Cameroon. If one can say that social performance (positive perception of the Commissary) are better understood regardless of the type of FMU, this is not yet the case with the environmental performance which include; the protection of wildlife, which allow only findings and not conclusions. Generally, corporate commitment towards FSC certification has been the engine of concrete social improvements and seems to mark the difference between FMU certified and non-certified FMU. Several factors could explain the constant improvements on socially and environmentally plan:

- The texts of laws exist, but they are wrong or do not even apply, highlighting gaps and deficiencies of public initiatives. This is the case of the 1992 labour code that should be known to all and applied. With FSC certification, annual evaluations or annual surveillance audits to track the effective implementation of these requirements;
- Certification requires forest companies to develop written procedures for all forest operations and implement them according to a previously established timetable.

The regularity of assessments and the need to respect the commitments are pushing forest enterprises to amend and improve constantly. This result suggests that the commitment, especially obtaining an FSC certificate, encourages forestry companies make positive changes in the administration of employees and jobs. This is a change in behavior, but difficult to quantify in terms of wildlife protection.

Through these few examples, it is clear that FSC certification schemes lack an evaluation reference for environmental effectiveness. While the study shows that behavioral changes have occurred following the introduction of these devices, it does not reveal whether the wildlife protection problem is treated.

References

- [1] Pearce, D.W., Putz, F. & Vanclay, J.K., (2003). Sustainable forestry in the tropics: panacea or folly ?, *Forest Ecology and Management*, vol. 172, 2-3: p. 229-247.
- [2] Anonymous, 1992. Act No. 92-007 of 14 August 1992 on the Labour Code in Cameroon. 49 p.
- [3] Durrieu de Madron et al. 1998. Study on low-impact logging techniques Cameroonian rainforest.
- [4] Anonymous, 2012. SFID Certification Audit Report. SmartWood / RainForest Alliance. 102 p.
- [5] Cerutti et al, 2014. Social Impacts of Forest Stewardship Council (FSC). Evaluation in the Congo Basin. Occasional Paper 105. CIFOR, Bogor, Indonesia. 60 p.
- [6] Guéneau (2012) .Towards the evaluation of supported devices the problem of decline in tropical rainforests. Doctoral thesis. Agroparistech. 581 p.